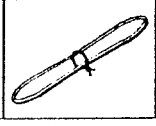
PACKAGED AIR CONDITIONER

Wired Remote Control Unit Installation Manual

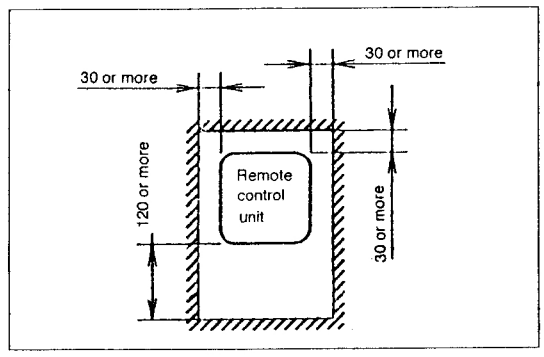
- Before installing the wired remote control unit, be sure to thoroughly read the "Notes with regard to safety" section of the Installation manual provided with the indoor unit.
- After installing the wired remote control unit, carry out a test operation to check that the remote control unit functions properly, and also explain the operation and cleaning procedures to the customer in accordance with the details in the instruction manual. Furthermore, ask the customer to keep this installation manual and the instruction manual in a safe place for later reference.

1.Accessories supplied with wired remote control unit

Name	Qty	Diagram	Use	Name	Qty	Diagram	Use
Remote contro unit	1		Operating the indoor units	4 mm screw	3		Installing the remote control unit to a wall
				M4 screw	3		Installing the remote control unit to an outlet box
Remote control cord	1		Connecting the indoor unit and remote control unit (cord length 10 m)	Round terminal	2		Connecting to indoor unit terminal block

2.Notes regarding wireless remote control unit setting-up location

- Select a place where the remote control unit can be operated easily (after obtaining approval from the building's owner).
- Install in a place which is away from direct sunlight and as free from humidity as possible.
- Install in a place which is as flat as possible to avoid warping of the remote control unit. (If installed to a wall with an uneven surface, damage to the LCD case or operation problems may result.)
- Install in a place where the LCD can be seen easily. If the remote control unit is installed somewhere which is too low or too high, it may be difficult to read the LCD. (Standard height from the floor is 1.2 to 1.5 meters.)
- Avoid installing the remote control cord near refrigerant pipes or drain pipes.
- Install the remote control cord at least 5 cm away from other electric wires (including stereo and TV cables) to avoid mis-operation (electromagnetic noise).
- If passing the remote control cord through a wall, be sure to install a water trap above the cord.
- For twin and triple types, only the main unit can be connected to the remote control unit. (The indoor unit connected to the remote control unit becomes the main unit, and connection is not possible to the sub units.)
- Allow sufficient space around the remote control unit as shown in the illustration at right.
  Secure the remote control unit lower case to the wall or to an outlet.

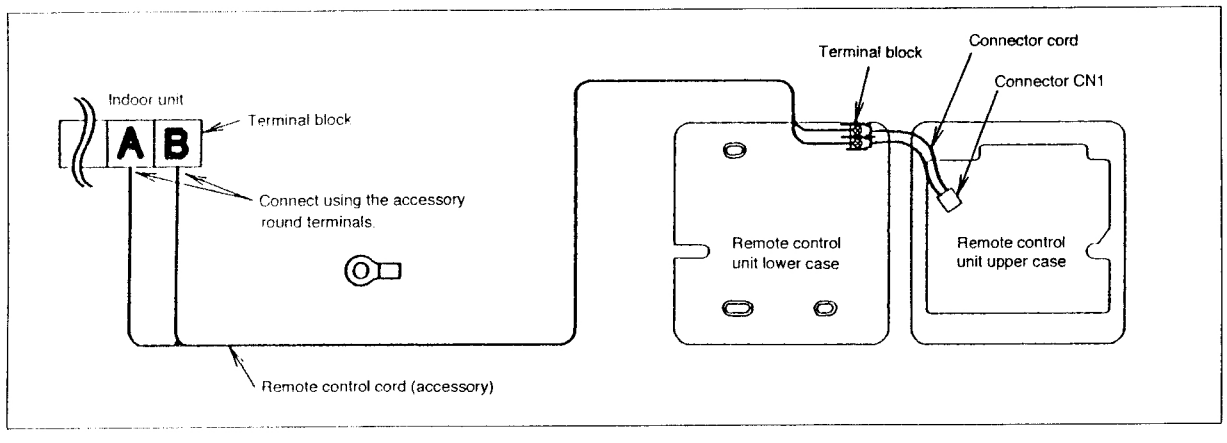


3.Remote control unit installation

- Be sure to turn off the main power before installing and connecting the remote control unit.
  (If the remote control unit is connected while the power is still turned on, the remote control unit displays may not appear.)
  If no displays appear on the remote control unit, check while referring to "If no remote control unit displays appear" in "5. Test operation".
- The remote control cable is live during use, so take care not to short it.

Remote control unit wiring

- Connect the indoor unit and the remote control unit as shown in the illustration below.
- The remote control unit cord is non-polar.
- At the time of shipment from the factory, the connector cable used to connect the terminal block and connector CN1 is disconnected. When connecting the remote control unit wiring and installing the remote control unit, be sure to connect the cord to connector CN1.



Extending the remote control cord

- Solder a sheathed PVC cord or cable (0.5 - 2.0 m
  the remote control unit end of the accessory remote
- PVC round cabtire cord
- PVC-insulated PVC sheathed cable for control use
- PVC-insulated PVC sheathed cable for control use
- 600 V PVC-insulated PVC sheathed round cable
- 600 V PVC-insulated PVC sheathed flat cable
- 600 V PVC-insulated PVC cabtire cable

NOTE

The maximum possible length for the remote co

Remote control unit installation procedure

- Remove the remote control unit lower case.
  (Insert a flat-tipped screwdriver or similar 2 to 3 r
  the gaps at the bottom of the case, and then twist t
  to open. [Refer to the illustration at right.])
  Be careful not to damage the lower case.
- Secure the lower case to the wall or outlet box.
  (Refer to the illustration at right for the embedde
  positions for the remote control cord.)

NOTE

- **★Be sure to use only the accessory screws.**
- **★Do not bend the lower case when tightening**
  damage may result.)
- **★Do not remote the protective tape which is affix**

- If installing the remote control unit with the remot
  unit cord exposed, use pliers to cut a notch into t
  case. (The feeding-out direction can be either up
  left or right.)
- Strip the end of the remote control cord which
  connected to the remote control unit. (Refe
  illustration at right.)

- Route the remote control cord inside the low
  accordance with the intended feeding-out directio
  the illustration below.)
  Securely connect connector CN1. (If it is not con
  remote control unit will not operate.)

NOTE

- **★After connecting the connector, do not suspe**
  the connector cord may break.

Extending the remote control cord

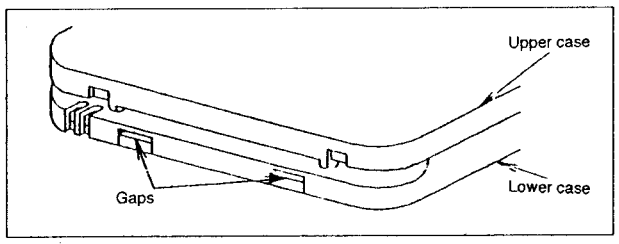
- Solder a sheathed PVC cord or cable (0.5 - 2.0 mm²) with specifications among those given below to the remote control unit end of the accessory remote control cord (10 m).
- PVC round cabtire cord
- PVC-insulated PVC sheathed cable for control use
- PVC-insulated PVC sheathed cable for control use
- 600 V PVC-insulated PVC sheathed round cable
- 600 V PVC-insulated PVC sheathed flat cable
- 600 V PVC-insulated PVC cabtire cable

NOTE

The maximum possible length for the remote control cord is 200 meters.

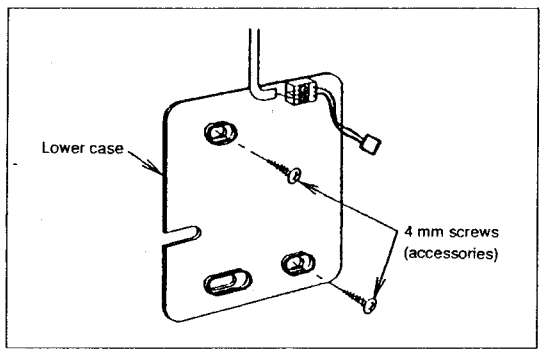
Remote control unit installation procedure

- Remove the remote control unit lower case.
  (Insert a flat-tipped screwdriver or similar 2 to 3 mm into one of the gaps at the bottom of the case, and then twist the screwdriver to open. [Refer to the illustration at right.])
  Be careful not to damage the lower case.
- Secure the lower case to the wall or outlet box.
  (Refer to the illustration at right for the embedded and exposed positions for the remote control cord.)

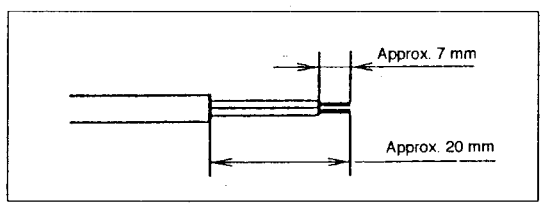


NOTE

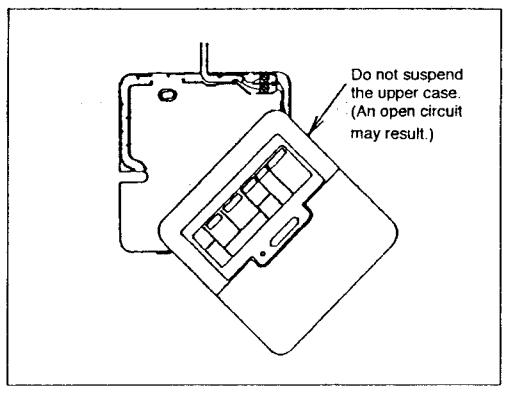
- **★Be sure to use only the accessory screws.**
- **★Do not bend the lower case when tightening the screws. (If the screws are overtightened, damage may result.)**
- **★Do not remote the protective tape which is affixed to the upper case circuit board.**



- If installing the remote control unit with the remote control unit cord exposed, use pliers to cut a notch into the upper case. (The feeding-out direction can be either up or to the left or right.)
- Strip the end of the remote control cord which is to be connected to the remote control unit. (Refer to the illustration at right.)

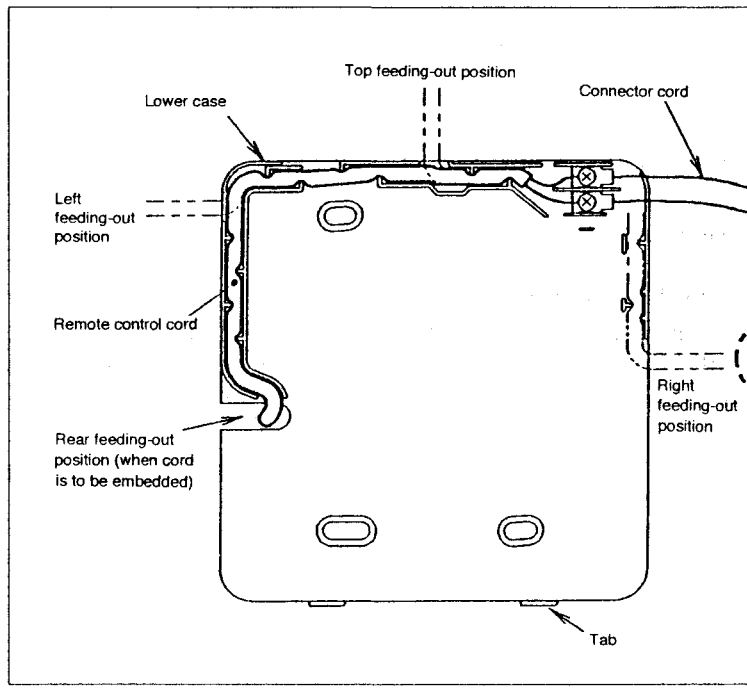


- Route the remote control cord inside the lower case in accordance with the intended feeding-out direction. (Refer to the illustration below.)
  Securely connect connector CN1. (If it is not connected, the remote control unit will not operate.)

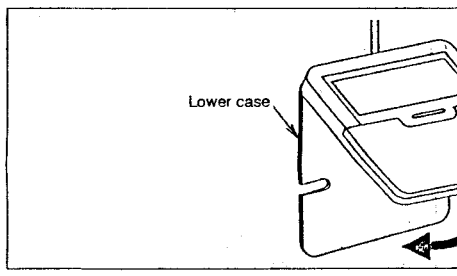


NOTE

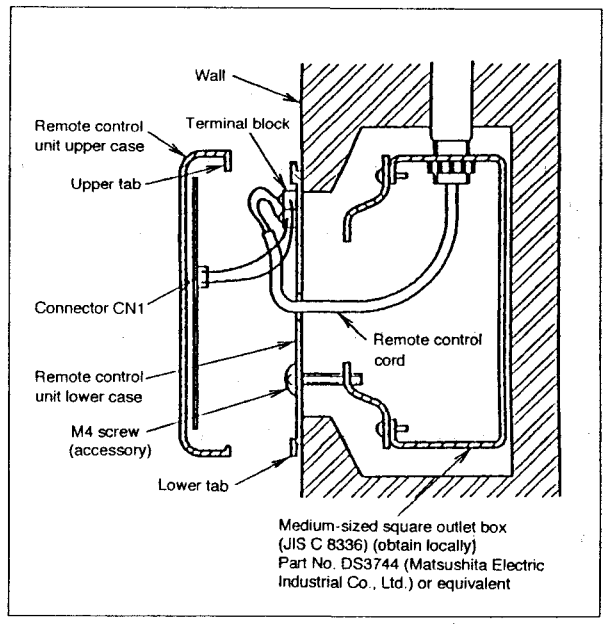
- **★After connecting the connector, do not suspend the upper case by its own weight, otherwise the connector cord may break.**



- If controlling using two remote control units, refer to Settings".
- Secure the upper case to the lower case.
  (Hook the upper tab of the upper case into the lower ca shut onto the lower case tab, while being careful connector cord.)



If remote control cord is embedded	If
1. Embed an outlet box (JIS C 8336) into the wall, and then secure the remote control unit base plate to the outlet box with the two accessory M4 screws. Make sure that the base plate is flat against the wall at this time, with no bending (looseness). 2. Pass the remote control cord into the box and then install the remote control unit.	1. 2. 3.

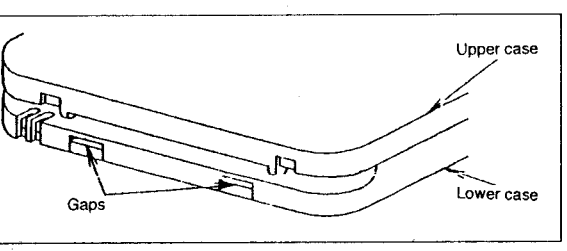


specifications among those given below to
cord (10 m).

rd is 200 meters.

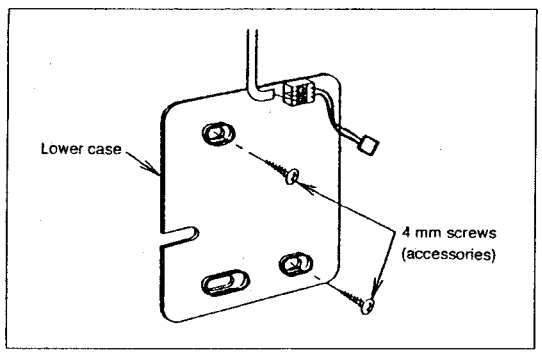
one of
driver

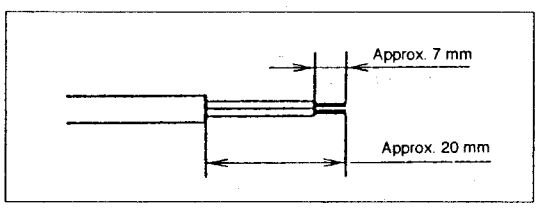
posed



ews. (If the screws are overtightened,

upper case circuit board.





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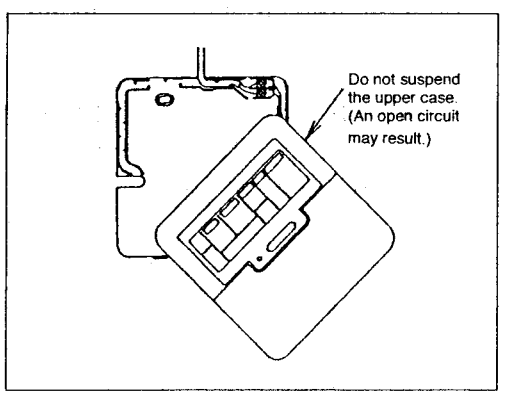
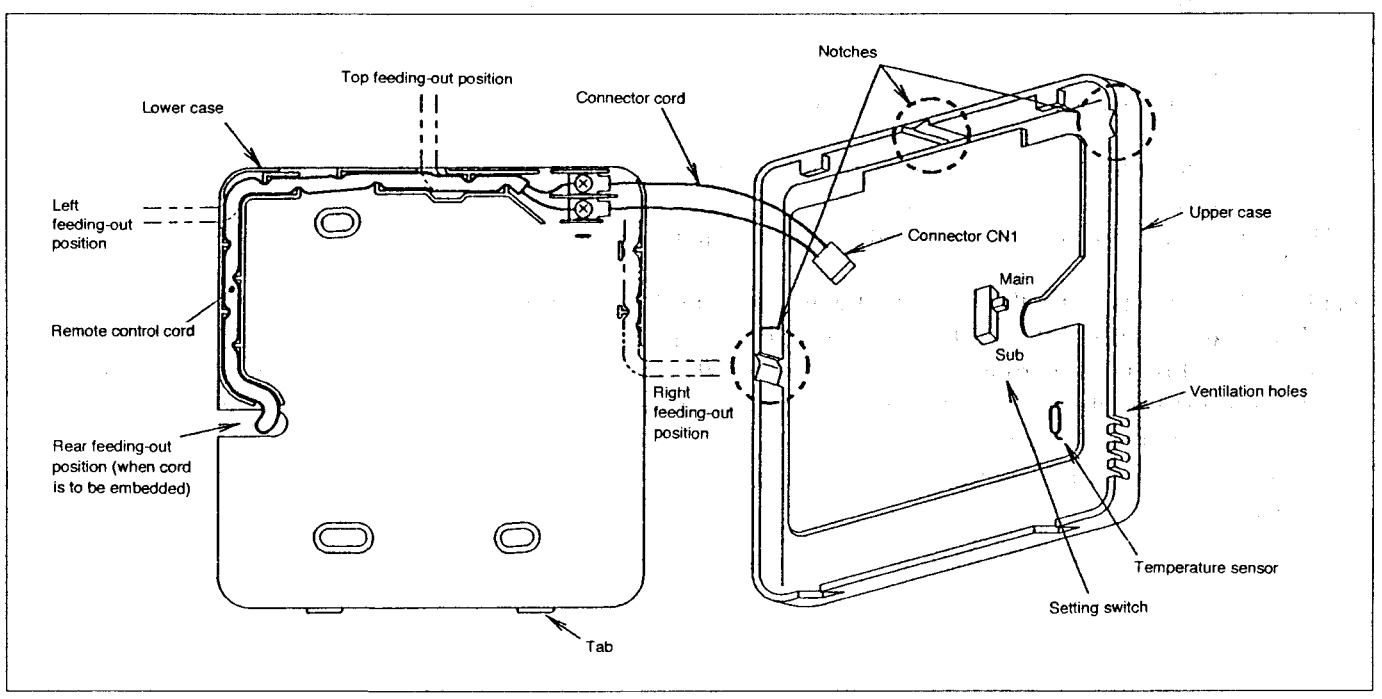
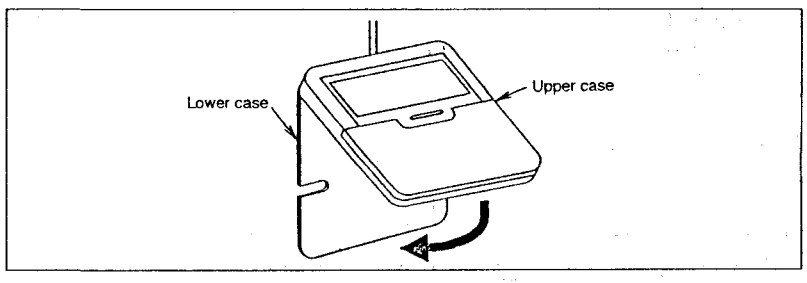


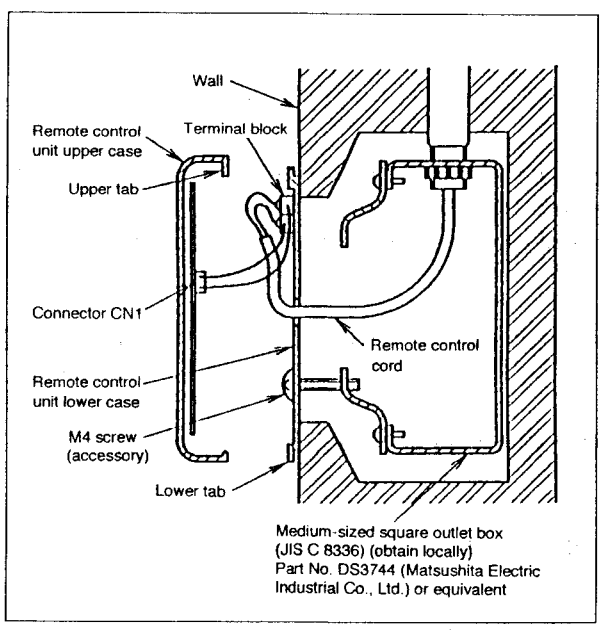
pper case by its own weight, otherwise

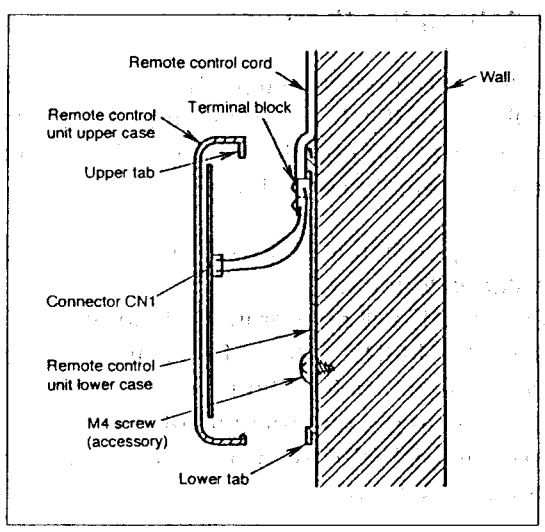


- If controlling using two remote control units, refer to "Control using two remote control units" in "4. Settings".
- Secure the upper case to the lower case.
  (Hook the upper tab of the upper case into the lower case, and then push the upper case until it snaps shut onto the lower case tab, while being careful not to clamp the remote control cord and the connector cord.)



If remote control cord is embedded	If installing with the remote control cord exposed
1. Embed an outlet box (JIS C 8336) into the wall, and then secure the remote control unit base plate to the outlet box with the two accessory M4 screws. Make sure that the base plate is flat against the wall at this time, with no bending (looseness). 2. Pass the remote control cord into the box and then install the remote control unit.	1. Secure the remote control unit base plate to the wall with the two accessory 4 mm screws. 2. The feeding-out direction for the remote control unit cord can be either up or to the left or right. (Refer to the illustration above.) After determining the feeding-out direction, use pliers to make a notch in the cover. 3. Route the remote control cord as shown in the illustration above. Pull the cord firmly around the outside of the base plate at this time.



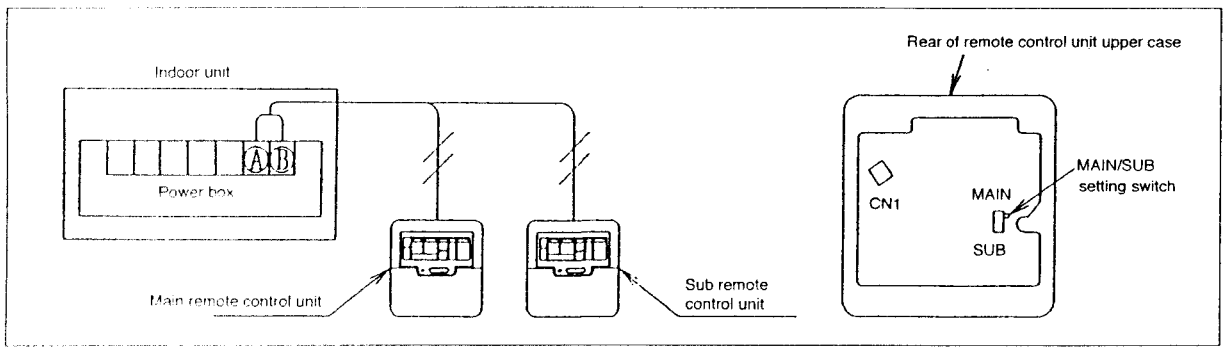


4. Settings

2 Control using two remote control units

- Up to two remote control units can be installed for a single indoor unit, and either remote control unit can be used to operate the indoor unit.
- The indoor unit can be operated with the last switch pressed having priority.

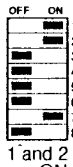
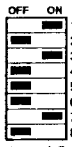
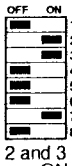
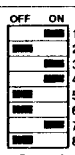
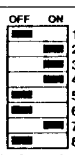
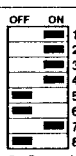
(1) Decide which is to be the main and which is to be the sub remote control unit.
The main or sub status of the remote control unit is set automatically. The MAIN/SUB setting switch can also be used to make the setting manually, however if a manual setting is made, that manual setting has priority. Be sure to turn off the main power before making a manual setting.
(2) Connect the remote control units.
Connect both remote control units to terminals (A) and (B) on the indoor unit terminal block (non-polar).



Group control

- When using a remote-controlled thermostat, the thermostat setting is used for all indoor units in the group.
- During group control, up to a maximum of 16 indoor units can be connected. (Do not mix heat pump units and cooling-only units.)
- During group control, the indoor unit address numbers are set automatically. However, you will not know at this time which address number corresponds to which indoor unit.
Setting of address numbers can also be carried out manually using the DIP switches. Manual settings have priority, so after making a manual setting, so that if you then want automatic setting to be carried out, set indoor unit No. 1 of the indoor units to be controlled as a group using manual setting, and then carry out the procedure in "Automatic address resetting for group control".

Manual setting

Indoor unit No.	1	2	3	4	5	6	7	8
DIP switch (DSW1) setting on indoor unit printed circuit board								
Air conditioner No. setting	No operation necessary	1 is ON	2 is ON	1 and 2 are ON	3 is ON	1 and 3 are ON	2 and 3 are ON	1, 2 and 3 are ON
Indoor unit No.	9	10	11	12	13	14	15	16
DIP switch (DSW1) setting on indoor unit printed circuit board								
Air conditioner No. setting	4 is ON	1 and 4 are ON	2 and 4 are ON	1, 2 and 4 are ON	3 and 4 are ON	1, 3 and 4 are ON	2, 3 and 4 are ON	1, 2, 3 and 4 are ON

NOTE

- The ON/OFF setting position for DIP switch No. 7 (louver on/off) will vary depending on the unit model.

Automatic address resetting for group control

- The address settings for group control (air conditioner Nos. 1 to 16) can be reset automatically.

(1) While operation is stopped, press the AUTO FAN SPEED ADJUST switch, AIR CONDITIONER NO. and OPERATION MODE switches simultaneously.

Switching the thermistor

- The temperature detection thermistor used for detecting the air temperature and changing between COOL and HEAT operation can be switched between the thermistor at the indoor unit and the thermistor at the remote control unit box. However, do not switch to the remote control unit thermistor if using two remote control units.

(1) While operation is stopped, press and hold the STOP/RUN switch, and then press the UP and DOWN switches together.
(2) "00" or "01" will appear in the time display.
(3) Press the FORWARD or BACK timer switches to switch the display between "00" and "01".
"00" ... Indoor unit setting (factory default)
"01" ... Remote control unit setting
(4) Press the RESERVE switch. (Be sure to press the RESERVE switch so that normal operation mode can be resumed.)

- Repeat the procedure in steps (1) to (4) to change the setting again.

Energy save setting

- Upper and lower limits can be set for the setting (Energy save setting)

(1) While operation is stopped, press the UP and DO
(2) To set an upper limit (Setting a temperature abov
Press the OPERATION MODE switch until HEA
Press the UP or DOWN switch to set the temper
Press the RESERVE switch.
Example:If the heating display is set to 28°C, se
possible.
(3) To set a lower limit (Setting a temperature below
Press the OPERATION MODE switch until COO
Press the UP or DOWN switch to set the temper
Press the RESERVE switch.
Example:If the cooling display is set to 22°C, set
possible.
(4) If the CLEAR switch is pressed during steps (2) o

★Press the RESERVE switch or the CLEAR switch
energy save setting in steps (2) to (4).

5.Test operation

- Turn on the main power.
- After 3 minutes have passed since the power w
remote control unit. (No operation occurs within 3 m
- Press the TEST RUN switch within 1 minute of pres
- Next, select the operation mode. (Be sure to selec
5 minutes or more.)
- Press the STOP/RUN switch or the TEST RUN swi
★Test operation will be canceled automatically after

If no remote control unit displays appear

- Check whether LED1 (green) on the indoor unit pri
switched off, check the circuits on the indoor unit p
- Check once more that the remote control cord is s
contacts, connection positions on terminal block, et
- If the above checks show that nothing is wrong bu
it is possible that the remote control unit was cor
such is the case, carry out the following.
★Set DIP switch (DSW1) Nos. 1 to 4 to the ON pos
appears after about 30 seconds, turn DIP switches

6.Self-diagnosis function

The LED1 (green) indicators on the indoor unit
illuminate to indicate that the microprocessors are
are flashing irregularly, check the power supply, an

If "CHECK" is flashing on the timer

- If the "CHECK" display on the wired remote contr
displayed on the timer display screen each time the
- Further details of the problem can be displayed
general problem details are being displayed.

Example of current problem display

- Press the CHECK button

Timer	Fan speed	Operation	Temperature setting
CHECK F26			Air conditioner No. 01

Problem display →

rgy save setting

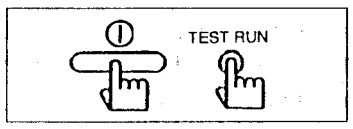
r and lower limits can be set for the setting temperature during cooling and heating operation gy save setting)

le operation is stopped, press the UP and DOWN switches simultaneously.
set an upper limit (Setting a temperature above the energy save temperature will not be possible.)
ss the OPERATION MODE switch until HEAT is displayed.
ss the UP or DOWN switch to set the temperature.
ss the RESERVE switch.
mple:If the heating display is set to 28°C, setting the temperature to higher than 28°C will not be possible.
set a lower limit (Setting a temperature below the energy save temperature will not be possible.)
ss the OPERATION MODE switch until COOL is displayed.
ss the UP or DOWN switch to set the temperature.
ss the RESERVE switch.
mple:If the cooling display is set to 22°C, setting the temperature to lower than 22°C will not be possible.
e CLEAR switch is pressed during steps (2) or (3) above, the energy save setting will be cleared.

the RESERVE switch or the CLEAR switch to return to normal operation mode after making an y save setting in steps (2) to (4).

t operation

on the main power.
3 minutes have passed since the power was turned on, press the STOP/RUN switch on the e control unit. (No operation occurs within 3 minutes after the power was turned on.)
the TEST RUN switch within 1 minute of pressing the STOP/RUN switch.
select the operation mode. (Be sure to select cooling mode first, and run the unit in this mode for utes or more.)
the STOP/RUN switch or the TEST RUN switch to cancel test operation.
peration will be canceled automatically after 30 minutes.



remote control unit displays appear

whether LED1 (green) on the indoor unit printed circuit board is illuminated or switched off. If it is ed off, check the circuits on the indoor unit printed circuit board.
once more that the remote control cord is securely connected. (Check for loose terminals, poor cts, connection positions on terminal block, etc.)
above checks show that nothing is wrong but nothing appears on the remote control unit display, ossible that the remote control unit was connected while the main power was still turned on. If s the case, carry out the following.
P switch (DSW1) Nos. 1 to 4 to the ON position, and then turn the power back on. If the display rs after about 30 seconds, turn DIP switches 1 to 4 back to OFF.

-diagnosis function

ED1 (green) indicators on the indoor unit and outdoor unit microprocessor circuit boards ate to indicate that the microprocessors are operating normally. If the LEDS are switched off or shing irregularly, check the power supply, and turn it off and then back on again.

HECK" is flashing on the timer

'CHECK" display on the wired remote control unit is flashing, the details of the problem(s) are ved on the timer display screen each time the CHECK button is pressed.
r details of the problem can be displayed by pressing the TIMER ON/OFF button while the al problem details are being displayed.

mple of current problem display

the CHECK button → ●Continue pressing the TIMER ON/OFF switch while the problem details are being displayed.

Timer	Fan speed	Operation	Temperature setting
CHECK F26			Air conditioner No. 01

Timer	Fan speed	Operation	Temperature setting
CHECK -01			Air conditioner No. 01

If "CHECK" is not flashing on the timer display

- If the "CHECK" display on the wired remote control unit is n continuously for 5 seconds or more to display the problem deta before that.
- You can then switch between the displays for the previous pro pressing the timer FORWARD or BACK buttons.
- Press the CHECK button once more to return to the normal displa

Example of previous problem display

- Press the CHECK switch for 5 seconds or more . → ●Cont switc displ

Timer	Fan speed	Operation	Temperature setting
CHECK 1F26			Air conditioner No. 01

Problem display →
Detai display →

Example of abnormality display before previous display

- While the previous display still appears, press the FORWARD timer switch. → ●Conti switc displa

Timer	Fan speed	Operation	Temperature setting
CHECK 2F26			Air conditioner No. 01

Problem display →
Detai display →

- The display can be switched between the previous problem and FORWARD and BACK timer switches.

- After eliminating the cause of the problem, press the CHECK swit display.
- If the problem disappears and operation returns to normal, the C unit will switch off, but the self-diagnosis LED will remain illuminate

SELF-DIAGNOSES FUNCTION

Wired remote control unit display		Location of problem	
Abnormal display	Detail display		
F15	- 01	Drain level float switch problem	Drain pump and drai or relay connector
F16	- 01	Louver switch problem	Louver motor, veneer panel
F17	- 01	Option problem	Option connection te
F20	- 01	Indoor temperature thermistor problem	Indoor temperature the
	- 02	Remote control thermistor problem	Remote control therr
F21	- 01	Pipe temperature thermistor problem (indoor unit side)	Pipe temperature the CN1
F25	- 01	Centralized control address overlap problem	Check settings for option
F26	- 01	Remote control transmission wire open circuit problem	Remote control unit c
	- 02	Remote control transmission problem	Check the transmissi
F27	- 01	Indoor/outdoor unit transmission wire open circuit problem	Indoor/outdoor unit c or indoor unit and out
	- 02	Indoor/outdoor unit transmission problem	Check the transmissi
F29	- ○○	Setting problem	Contact the place of p
F30~F49	- ○○	Outdoor unit problem	Refer to the section o

perature during cooling and heating operation

switches simultaneously.
energy save temperature will not be possible.)
splayed.

the temperature to higher than 28°C will not be

nergy save temperature will not be possible.)
isplayed.

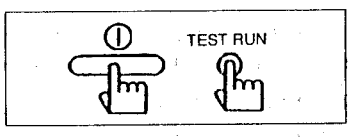
ne temperature to lower than 22°C will not be

above, the energy save setting will be cleared.

turn to normal operation mode after making an

rned on, press the STOP/RUN switch on the
es after the power was turned on.)
the STOP/RUN switch.
ing mode first, and run the unit in this mode for

o cancel test operation.
nutes.



circuit board is illuminated or switched off. If it is
circuit board.
ely connected. (Check for loose terminals, poor

ning appears on the remote control unit display,
ed while the main power was still turned on. If

and then turn the power back on. If the display
4 back to OFF.

outdoor unit microprocessor circuit boards
ating normally. If the LEDS are switched off or
it off and then back on again.

it is flashing, the details of the problem(s) are
ECK button is pressed.
pressing the TIMER ON/OFF button while the

➔ ●Continue pressing the TIMER ON/OFF switch while the problem details are being displayed.

Timer	Fan speed	Operation	Temperature setting
CHECK -01			Air conditioner No. 01

Detai display →

If "CHECK" is not flashing on the timer display

- If the "CHECK" display on the wired remote control unit is not flashing, press the CHECK button continuously for 5 seconds or more to display the problem details for the last problem or the problem before that.
- You can then switch between the displays for the previous problem and the problem before that by pressing the timer FORWARD or BACK buttons.
- Press the CHECK button once more to return to the normal display.

Example of previous problem display

- Press the CHECK switch for 5 seconds or more . → ●Continue pressing the TIMER ON/OFF switch while the problem details are being displayed.

Timer	Fan speed	Operation	Temperature setting
CHECK 1F26			Air conditioner No. 01

Problem display →

Timer	Fan speed	Operation	Temperature setting
CHECK 1-01			Air conditioner No. 01

Detai display →

Example of abnormality display before previous display

- While the previous display still appears, press the FORWARD timer switch. → ●Continue pressing the TIMER ON/OFF switch while the problem details are being displayed.

Timer	Fan speed	Operation	Temperature setting
CHECK 2F26			Air conditioner No. 01

Problem display →

Timer	Fan speed	Operation	Temperature setting
CHECK 2-01			Air conditioner No. 01

Detai display →

- The display can be switched between the previous problem and the one before that by pressing the FORWARD and BACK timer switches.

- After eliminating the cause of the problem, press the CHECK switch once more to return to the normal display.
- If the problem disappears and operation returns to normal, the CHECK display on the remote control unit will switch off, but the self-diagnosis LED will remain illuminated until operation is resumed.

SELF-DIAGNOSES FUNCTION

Wired remote control unit display		Location of problem	Check location
Abnormal display	Detail display		
F15	- 01	Drain level float switch problem	Drain pump and drain pipe, indoor unit connectors CN6 & CN10, or relay connector
F16	- 01	Louver switch problem	Louver motor, veneer panel connection terminal, or indoor unit connectors CN1 & CN6
F17	- 01	Option problem	Option connection terminals
F20	- 01	Indoor temperature thermistor problem	Indoor temperature thermistor lead wire or indoor unit connector CN1
	- 02	Remote control thermistor problem	Remote control thermistor
F21	- 01	Pipe temperature thermistor problem (indoor unit side)	Pipe temperature thermistor lead wire or indoor unit connector CN1
F25	- 01	Centralized control address overlap problem	Check settings for optional centralized control circuit board address switch
F26	- 01	Remote control transmission wire open circuit problem	Remote control unit cable and connection terminals
	- 02	Remote control transmission problem	Check the transmission wave pattern
F27	- 01	Indoor/outdoor unit transmission wire open circuit problem	Indoor/outdoor unit connection cable and connection terminals, or indoor unit and outdoor unit power supplies
	- 02	Indoor/outdoor unit transmission problem	Check the transmission wave pattern
F29	- ○○	Setting problem	Contact the place of purchase.
F30~F49	- ○○	Outdoor unit problem	Refer to the section on outdoor unit self-diagnosis.